ABSTRACT OF THE DISCLOSURE

[00195] In a Bluetooth controller, the microprocessor is relieved of the duty to perform operations at time critical points in relation to Bluetooth transmission and receive time slots by using a hardware circuit that stores data from a number of Bluetooth SCO/ACL data packets received into a storage or forms such packets by retrieving data from the storage in a timely manner according to predetermined time slots without assistance from the microprocessor at time critical points. The hardware circuit also handles time critical information in relation to FHS data packets so that the microprocessor is also relieved of the duty to perform such time critical tasks. The number of buffers used to support data communication can be reduced by checking the expiration times of the buffer when the buffer is assigned to support a Bluetooth data connection. Then, when the connection experiences difficulties, the buffer will be released upon expiration timeout. To allow both a hardware circuit and a microprocessor to access the same buffer without conflict, an arbitration device or process may be employed. To allow more efficient use of bandwidth, connections with other Bluetooth devices that are used to transfer efficient data are given higher priority than other connections that do not.